RIDOT TMC Unplanned Incident Statistics and Performance Measures
Quarterly Report
7/1/2008 To 9/30/2008

The Rhode Island transportation system serves 39 cities and towns, encompassing rural, metropolitan, and tourist areas. The Rhode Island Department of Transportation's Transportation Management Center (RIDOT TMC) has been addressing the problem of increasing congestion in Rhode Island by informing the traveler of crashes and unusual delays. In doing so, the TMC has provided measurable benefits to the transportation system, and has developed the technology and institutional awareness necessary to expand the Intelligent Transportation Systems (ITS) Program (called RhodeWays) to the benefit of Rhode Island travelers.

The RIDOT TMC maintains detailed statistics on incidents that we manage from our center. Because the data are entered by our TMC Operators, the statistics are dependent on what we can observe on the roadways with our equipment. Review and compilation of these statistics is part of our ongoing Performance Measurement effort. Through this effort, we are quantifying the benefits of the ITS program in our state, and are also able to monitor improvements in the efficiency and effectiveness with which we manage roadway incidents. By making these statistics available to you on a monthly basis, we hope that you can learn more about the program and understand the benefit of the service we provide to the Rhode Island motoring public.

These periodic reports represent statistics for unplanned incidents on Rhode Island's roadways. The types of incidents included in the report include disabled vehicles, debris on the roadway, emergency roadwork, and vehicle accidents, including jack-knifed trucks and vehicle spinouts. Additionally, a category exists for congestion delays that are outside of typical recurring congestion. The TMC does assist in information dissemination for planned events (such as construction) as well, but those types of events are not included in the statistics. Also, abandoned vehicles are not included since they tend to skew the statistics.

We hope you find this report interesting and that it helps in understanding the significant benefit that the RhodeWays program provides to the people who travel Rhode Island's roadways every day. Also, please remember to check the TMC website frequently for updates (http://www.tmc.state.ri.us), including construction and incident information.
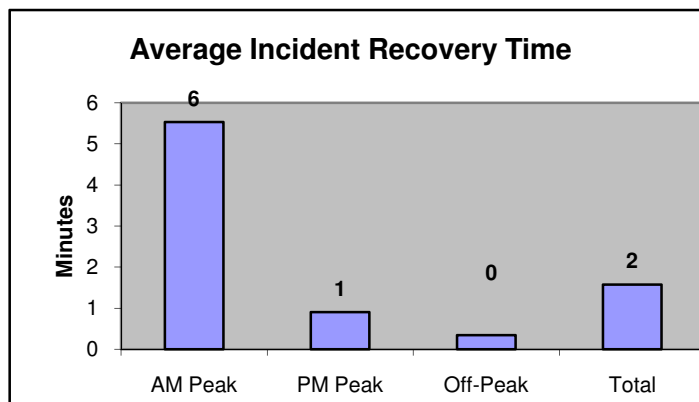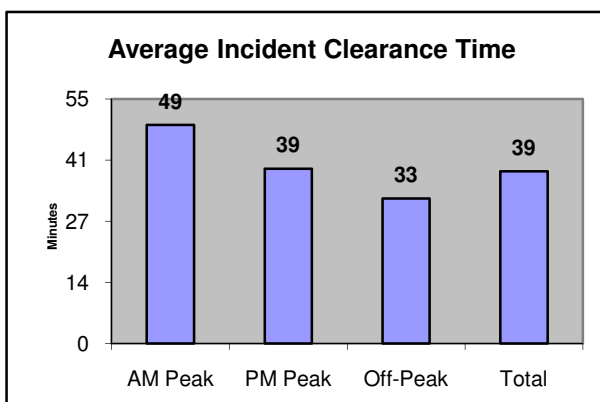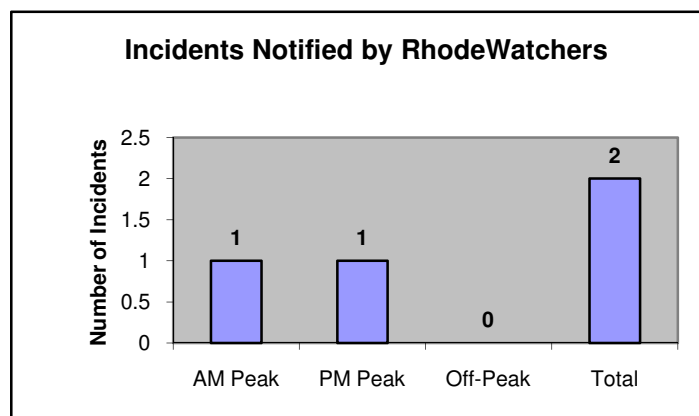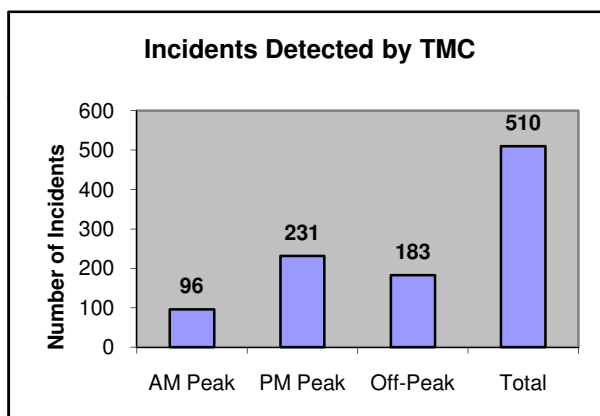
RIDOT TMC Unplanned Incident Statistics and Performance Measures Report

1. Peak Period Incident Statistics*

	AM Peak	PM Peak	Off-Peak	Total
Number of Incidents	101	238	194	533
Avg. Incident Duration (hr:min)	55	40	33	40
Avg. Incident Clearance Time (hr:min)	49	39	33	39
Avg. Incident Recovery Time (hr:min)	6	1	0	2
# Detected by TMC Operators (CCVE)	55	62	97	214
# Detected by TMC, State Police	41	169	86	296
# Notified by RhodeWatchers	1	1	0	2
# of Messages Posted VMS	8	17	11	36
# of Messages Posted DMS	59	117	117	293
# of Messages Posted HAR	32	47	67	146
# of Messages posted Web	93	223	174	490
Avg. Delay Cost**	$230,975	$169,751	$139,285	$170,263
Total Delay Cost	$23,328,441	$40,400,711	$27,021,222	$90,750,374

* AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday

** Delay Cost is a function of incident duration, volume on the roadway, delay per person, and cost per hour of delay
   for both commercial and personal vehicles. Average delay cost includes only incidents with a lane
   blockage and represents average cost per incident.

Incidents Detected by TMC

Incidents Notified by RhodeWatchers

Average Incident Clearance Time

Average Incident Recovery Time

Note: Statistics in this report are only for incidents that the TMC reported or responded to. They do not include all incidents that occurred on Rhode Island roadways

Incident Clearance Time is the time from the start of an incident (or when it is detected) to the time it is cleared from the roadway.
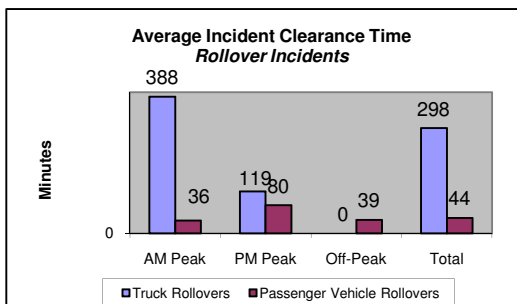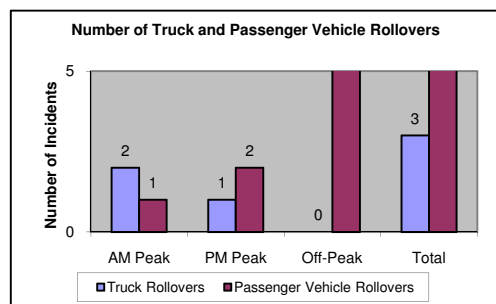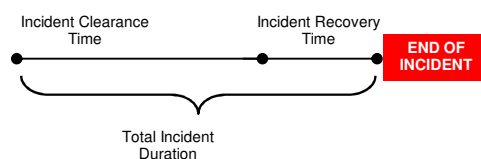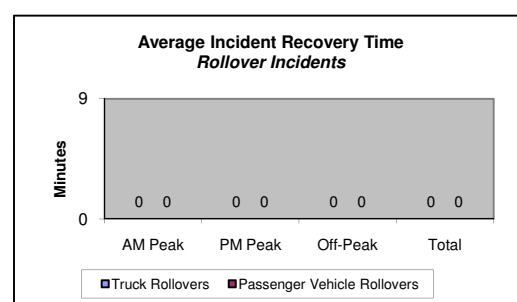
Incident Recovery Time is the time it takes for the roadway to be rid of residual delay following incident clearance. It is based on TMC Operator observation.

2. Rollover Incident Statistics*

VEHICLES	Trucks				Automobiles			
	AM Peak	PM Peak	Off-Peak	Total	AM Peak	PM Peak	Off-Peak	Total
No. of Rollovers	2	1	0	3	1	2	12	15
Avg. Incident Duration (min)	388	119	0	298	36	80	39	44
Avg. Incident Clearance Time (min)	388	119	0	298	36	80	39	44
Avg. Incident Recovery Time (min)	0	0	0	0	0	0	0	0

* AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday

Number of Truck and Passenger Vehicle Rollovers

Average Incident Clearance Time
Rollover Incidents

Roadway	Exit Number	Number Of Rollovers
Interstate 195 Westbound	2	1
Interstate 195 Westbound	N/A	1
Interstate 295 Northbound	11	1
Interstate 295 Northbound	6	1
Interstate 295 Southbound	4	1
Interstate 95 Northbound	10	1
Interstate 95 Northbound	14A	1
Interstate 95 Northbound	7	1
Interstate 95 Northbound	6A	1
Interstate 95 Northbound	13	1
Interstate 95 Southbound	18	1
Interstate 95 Southbound	18	1
Route 10 Northbound	N/A	1
Route 10 Northbound	N/A	1
Route 146 Northbound	N/A	1
Route 4 Southbound	N/A	1
Route 4 Southbound	7	1
Route 6 Westbound	N/A	1
TOTAL		**18**

Average Incident Recovery Time
Rollover Incidents

Incident Clearance Time — Incident Recovery Time — END OF INCIDENT

Total Incident Duration

START OF INCIDENT

3.   Incidents by Severity Level

Severity Level*	No. of Incidents
Severity 0	184
Severity 1	160
Severity 2	69
Severity 3	22
Severity 4	28
Unknown	70
Total	*533*

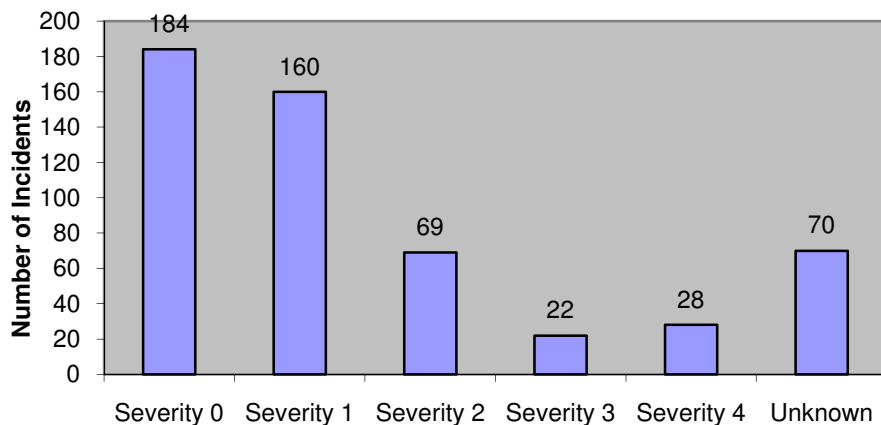**Number of Incidents with a Secondary Incident:** 2

Percentage of Incidents with a Secondary Incident: 0.38%

Note: A "secondary" incident is one that is the result of an earlier incident.

Percent of Incidents by Severity Level

20%

8%

6%

46%

20%

- ■ Severity 1
- ■ Severity 2
- ■ Severity 3
- ■ Severity 4
- ■ Unknown

Number of Incidents by Severity Level

	Severity 0	Severity 1	Severity 2	Severity 3	Severity 4	Unknown
Number of Incidents	184	160	69	22	28	70
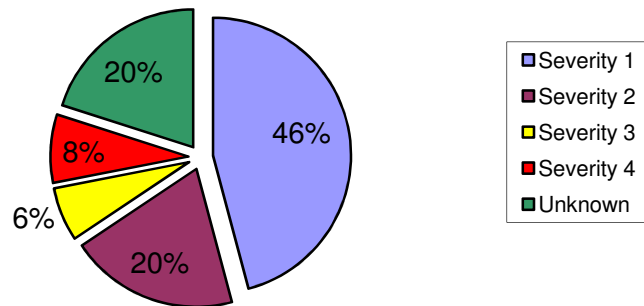
*Definition of Incident Severity Levels:

Severity 0: No injuries and no travel lanes blocked

Severity 1: 1/4+ travel lanes blocked with no injuries OR median/shoulder closed with injuries

Severity 2: 1/3 or 2/4+ lanes blocked OR Fire w/ 0 lanes closed OR Hazmat w/ 0 lanes closed

Severity 3: 1/2 or 2/3 or 3/4+ lanes blocked OR Fire w/ 1/3 or 2/4 lanes closed OR
   Hazmat w/ 2/4 lanes closed

Severity 4: All travel lanes blocked OR fatality OR Hazmat w/ clean-up OR Fire w/ 1/2, 2/3, 3/4 lanes closed
   OR Structural damage w/ 1/3, 2/3+ lanes closed

Unknown: Incidents without a recorded severity level

Note: For travel lanes blocked terminology, "1/4" indicates 1 out of 4 lanes blocked
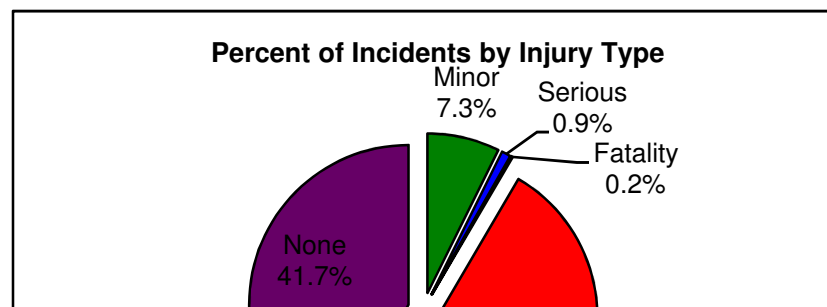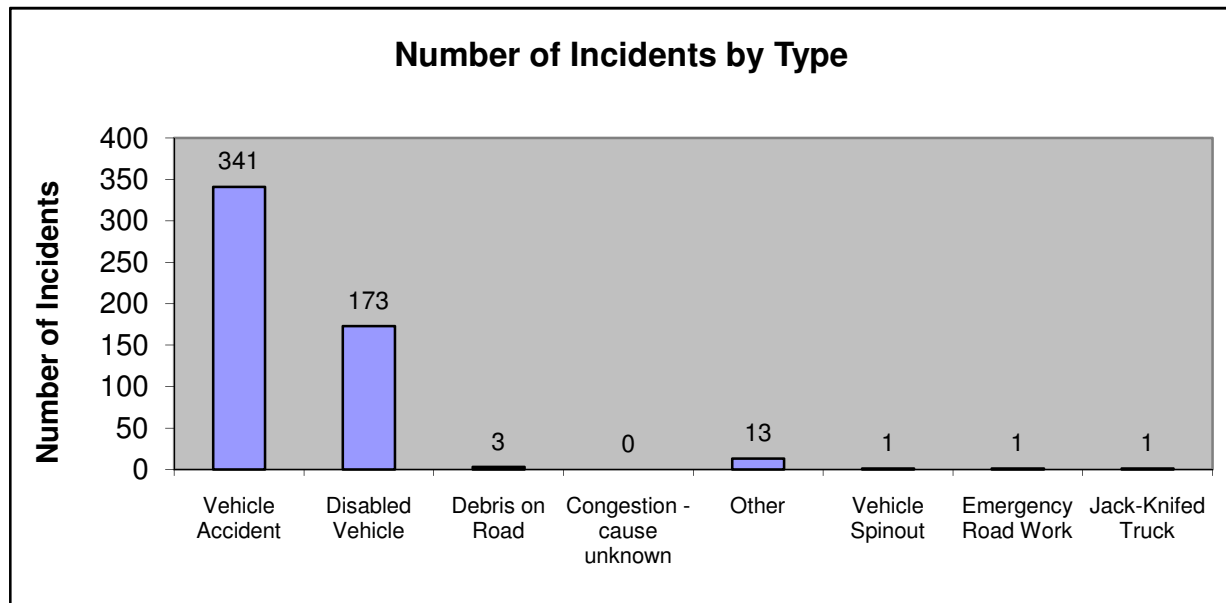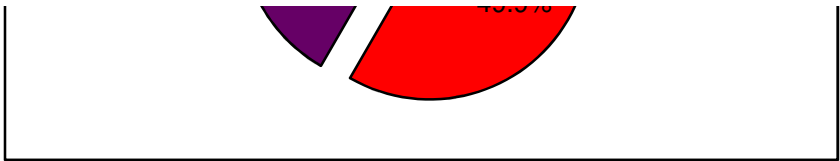
4.   Incidents by Type

Incident Type	No. of Incidents
Vehicle Accident	341
Disabled Vehicle	173
Debris on Road	3
Congestion - cause unknown	0
Other	13
Vehicle Spinout	1
Emergency Road Work	1
Jack-Knifed Truck	1
Total Number of Incidents	*533*

5.   Incidents by Injury Type

Injury Type	No. of Incidents
Minor	39
Serious	5
Fatality	1
Unknown	266
None	222
Total	*533*

Number of Incidents by Type

Percent of Incidents by Injury Type

Minor 7.3%
Serious 0.9%
Fatality 0.2%
None 41.7%

6. Incidents by Pavement and Weather Conditions

Pavement Condition	No. of Incidents
Dry	452
Wet	80
Icy	0
Snow-Covered	0
Flooded	0
Other	1
Total	*533*
Precipitation	
None	483
Light-moderate rain falling	39
Heavy rain falling	11
Light-moderate sleet falling	0
Heavy sleet falling	0
Light-moderate snow falling	0
Heavy snow falling	0
Total	*533*
Wind	
Calm to Moderate	517
Moderate to Strong	5
Gusts over 50 mph	0
Gusts over 75 mph	0
Hurricane	2
Other	4
N/A	5
Total	*533*
Visibility	
Clear	489
Light fog	7
Dense fog	2
Reduced- rain	34
Reduced-snow	0
Poor-heavy rain/sleet	0
Poor-heavy snow	0
Reduced-smoke	0
Other	1
N/A	0
Total	*533*

7. Incidents Detected by Primary Notifier on Selected Roadways

Roadway	Primary Notifier	No. of Incidents
I-195	TMC Operator	44
	State Police Scanner	22
	Local Fire Department	0
	Rhode Watcher	1
	Media/MetroNetworks	1
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	49
	Total	*117*
I-95	TMC Operator	144
	State Police Scanner	76
	Local Fire Department	0
	Rhode Watcher	0
	Media/MetroNetworks	3
	Traffic.com	0
	TMC State Police	0
	Transcom	1
	Other	95
	Total	*319*
I-295	TMC Operator	5
	State Police Scanner	5
	Local Fire Department	1
	Rhode Watcher	1
	Media/MetroNetworks	0
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	5
	Total	*17*

Roadway	Primary Notifier	No. of Incidents
Route 10	TMC Operator	10
	State Police Scanner	8
	Local Fire Department	0
	Rhode Watcher	0
	Media/MetroNetworks	1
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	13
	Total	*32*
Route 146	TMC Operator	2
	State Police Scanner	7
	Local Fire Department	0
	Rhode Watcher	0
	Media/MetroNetworks	0
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	9
	Total	*18*
Route 6	TMC Operator	3
	State Police Scanner	7
	Local Fire Department	0
	Rhode Watcher	0
	Media/MetroNetworks	0
	Traffic.com	0
	TMC State Police	0
	Transcom	1
	Other	4
	Total	*15*

Number of Incidents on Selected Roadways

Number of Incidents

350
300
250
200
150
100
50

319 117 32 18 14 17 16

Num 0

| I-95 | I-195 | Route 10 | Route 146 | Route 6 | I-295 | Other |

Roadway
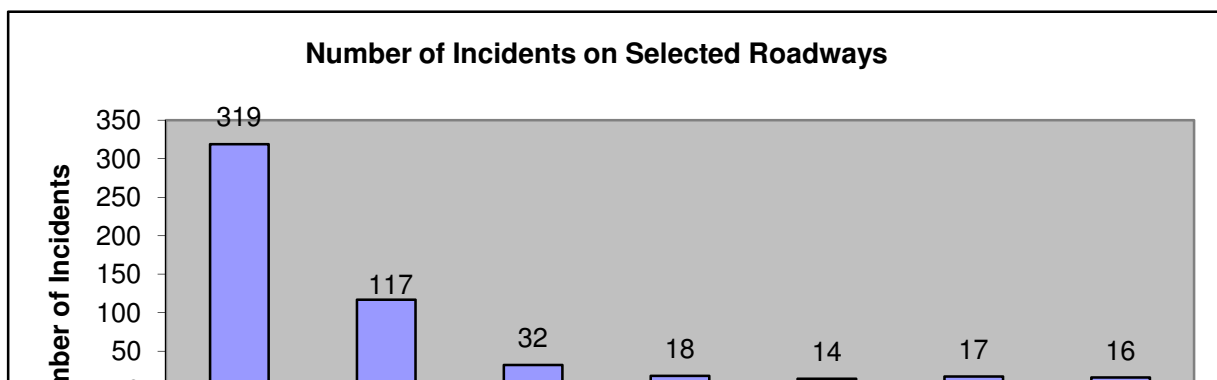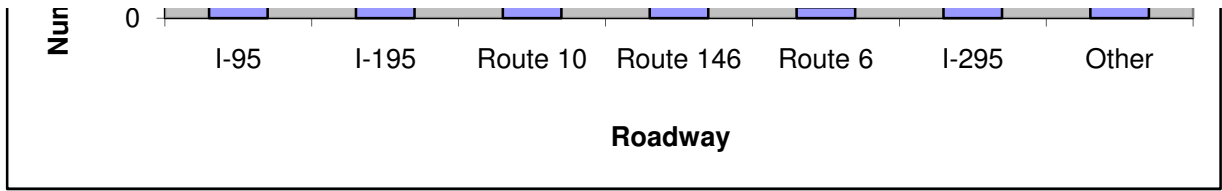
8. Incidents by Number of Vehicles Involved

No. of Vehicles Involved	No. of Incidents
1	6
2	242
3	217
4	47
5	14
6	3
7	0
8	0
9	0
10+	0
Unknown	4
Total Incidents	*533*

Number of Incidents by Vehicles Involved

1% 1%
9%
47%
42%

- 1
- 2
- 3
- 4
- Unknown
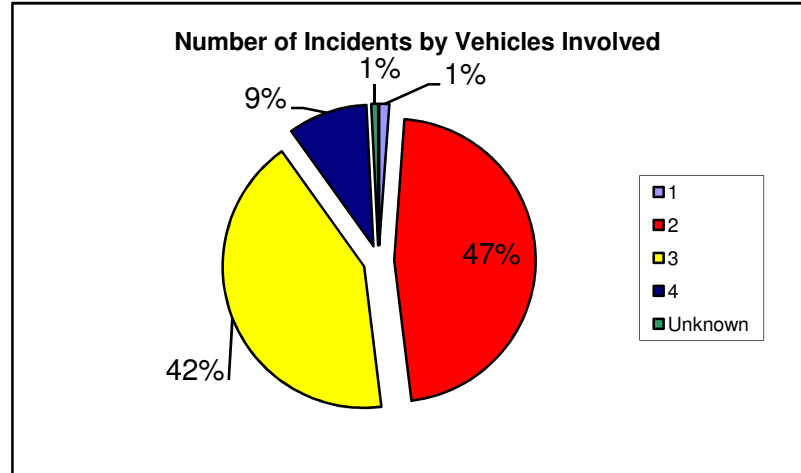
9. Incident Notification

Primary Notifier*	No. of Incidents
TMC Operator	214
Local Fire Department	1
RIDOT Maintenance	8
Media	5
Traffic.Com**	0
Local Police	2
Rhode Watcher	2
RISP	296
Transcom	2
Other	3
Total	*533*

*First notifier of the incident to TMC

**Formerly Mobility Technologies

Percent of Incidents by Primary Notifier

Other, 0.6%

Transcom, 0.4%

RISP, 55.5%

Rhode Watcher,
0.4%

Local Police,
0.4%

Traffic.Com**,
0.0%

RIDOT
Maintenance,
1.5%

Local Fire
Department,
0.2%

Media, 0.9%

Number of Incidents by Primary Notifier
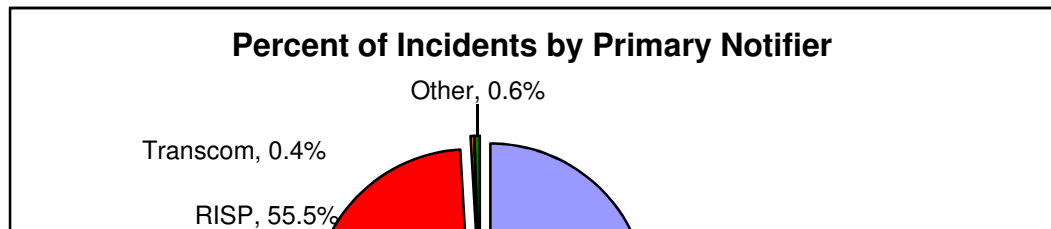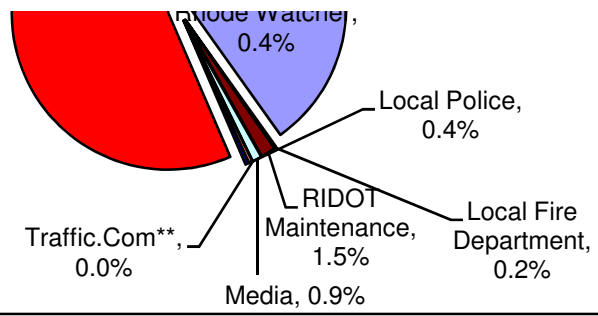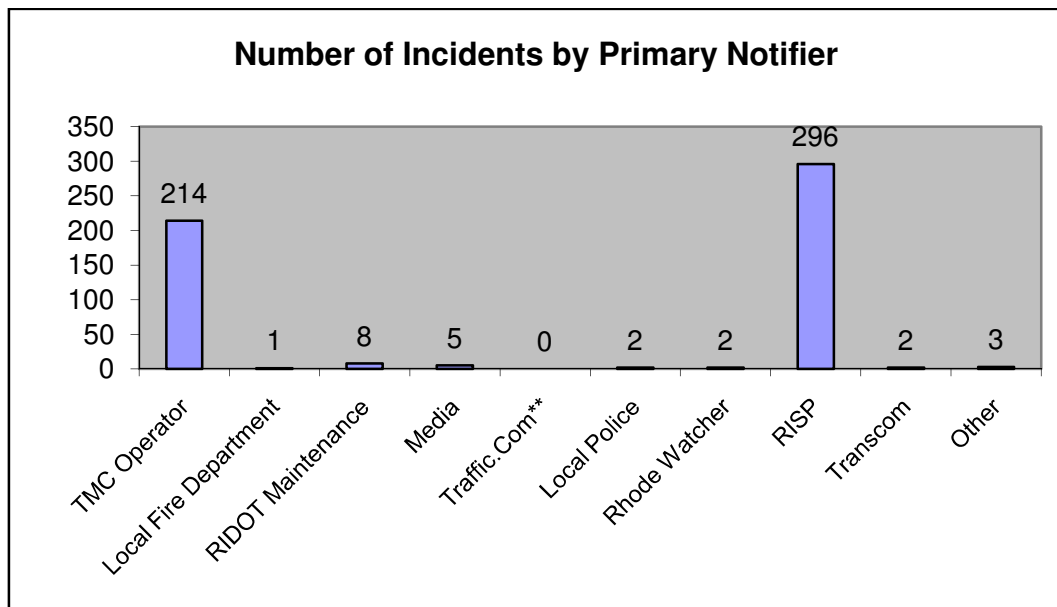
Notifier	No. of Incidents
RISP	293
TMC Operator	227
Rhode Watcher	1
Media	5
Local Police	2
Local Fire Department	3
Other	2
RIDOT Maintenance	7
Traffic.Com**	0
Transcom	1

Note: Primary notifier indicates the first notifier of the incident to the TMC. Additional notifiers are also logged, and are represented in the statistics for "all notifiers".

Number of Incidents by All Notifiers
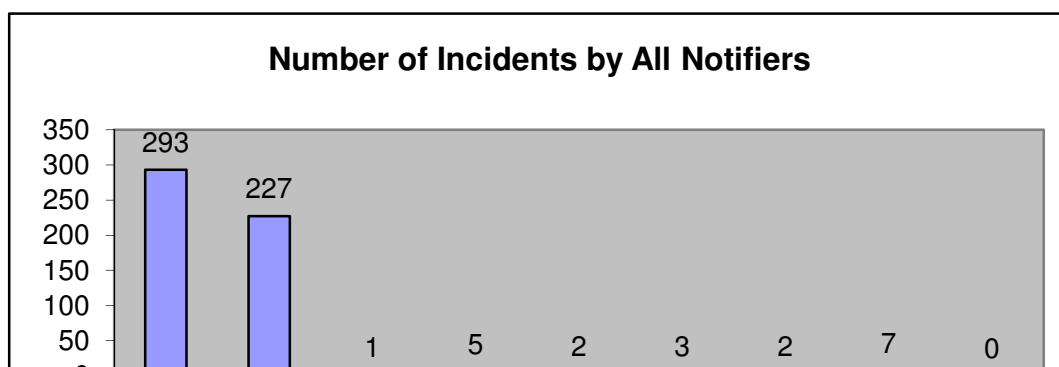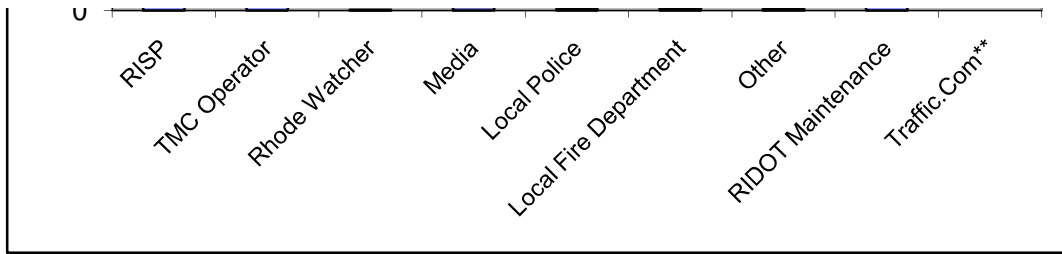
0

RISP

TMC Operator

Rhode Watcher

Media

Local Police

Local Fire Department

Other

RIDOT Maintenance

Traffic.Com**

10.   Incident Response

On-Scene Responding Agency	No. of Incidents	Percent of Total Incidents
State Police	422	79.17%
Tow	139	26.08%
Local Fire Department	98	18.39%
EMS	99	18.57%
Local Police	33	6.19%
Service Patrol	26	4.88%
Mass Highway	0	0.00%
DOT	15	2.81%
Hazmat	0	0.00%
DEM	1	0.19%
Connecticut DOT	0	0.00%
Construction	0	0.00%
Coast Guard	0	0.00%
Department of Health	0	0.00%
K-9	0	0.00%
RIPTA	0	0.00%

	# of Incidents
# Involved Equipment(HAR,VMS or CCVE)	328
# of VMS Messages	36
# of DMS Messages	293
# of HAR Messages	146
# of Web Messages	490

Note: Numbers and percentages in upper table indicate how many of the incidents during the month were responded to by the agency indicated. Note that multiple agencies may respond to an incident, so percentages do not add up to 100%.

Number of Incidents by On-Scene Responding Agency

Num 50
0

State Police   Tow   Local Fire Department   EMS   Local Police   Service Patrol   Mass Highway   DOT   Hazmat   DEM